## 3.4 Traffic Crash Analysis

Traffic accidents or "crashes" are often used as an indicator for locating congestion problems. While often the result of drivers or vehicle performance, crashes may also be a result of the physical characteristics of the roadway. Roadway conditions and obstructions, traffic conditions, and weather may all lead to a crash. While some crashes are the fault of the driver, others may be prevented with physical design changes or traffic control changes such as the installations of stop signs or traffic signals.

Crash data for the period from January 1999 to December 2002 was studied as part of the development for this plan. The crash analysis considered both frequency and severity. Frequency is the total number of reported crashes, while severity is based upon injuries and property damage incurred. These two factors help to determine high crash intersections; fortunately, no intersections within the planning area met the qualifications (frequency and severity) to be deemed high-accident locations.

To request a more detailed analysis for any of the locations or intersections of concern, the town should contact the Division 8 Traffic Engineer. Contact information for the Division 8 Traffic Engineer is included in **Appendix A**.

## 3.5 Existing and Projected Capacity Deficiencies

Roadway capacity deficiencies occur wherever the travel demand volume of a roadway is close to or more than the capacity of that roadway. Travel demand volume is the total number of vehicles that wish to use a roadway on a daily basis. The existing travel demand volumes for the town are based upon traffic count data taken annually by the NCDOT Traffic Surveys Unit. Volume to capacity ratios (V/C) have been calculated for the 2003 plan year and are shown in **Figure 4**.

A Travel Demand Model developed for Troy was used to estimate 2030 traffic demand. It was based on historic and anticipated population, economic growth patterns, and land use trends. The projected 2030 travel demand volume to capacity ratios, based on Troy's Travel Demand Model, are shown in **Figure 5**.